

Appendix B Notation

Symbol	Definition	Units
A	Scale parameter which depends mainly on sediment characteristics	$m^{1/3}$
a_b	Angle between breaker crest and shoreline	deg
A_F	Value of the A parameter for the fill material	—
A_N	Value of the A parameter for the native sediments (from the equilibrium profile equation)	—
B	Desired berm height	m
D	Mean sediment diameter	mm
D	Sediment grain size	mm
$d\ell$	Annual depth of closure (m) below mean low water	m
\exp	Base of natural logarithms (2.718)	—
g	Wave steepness	
g	Acceleration due to gravity	m/sec^2
h	Water depth at distance x from the shoreline	m
H	Primary contour interval	—
H	Depth of closure	m
H_b	Breaker height	m
H_e	Non-breaking significant wave height (m) that is exceeding 12 hr/year (0.137 % of the time)	m
L_f	Length of fill placement	m
L_s	Length of shoreline reach	m
m	Beach slope	—
M_b	Mean sediment diameter for borrow material	mm
M_n	Mean sediment diameter for native material	mm
Q_a	Quantity from advanced nourishment	m^3/m
Q_C	Quantity from construction template	m^3/m
Q_g	Gross longshore transport rate	m^3/yr
Q_{lt}	Material moving to the left	m^3/yr
Q_{of}	Quantity from overfill adjustment	m^3/m
Q_{rt}	Material moving to the right	m^3/yr

(Continued)

Symbol	Definition	Units
R_A	Overfill ratio	—
R_J	Renourishment factor	—
S_0 and S_2	Area enclosed by upper and lower primary contours	m^2
S_1	Area enclosed by midlevel contour	m^2
T_e	Associated wave period	sec
t	Time interval between renourishment	sec
v	Longshore velocity	m/sec^2
V	Volume of fill required to increase berm width	m^3/m
V_T	Total of placed fill material	m^3
w	Sediment fall velocity	cm/sec
x	Distance from shore	m
Y	Desired distance of seaward translation	m
ϕ	Sediment diameter	—
$\sigma_{\phi b}$	Standard deviation or measure of sorting for borrow material	—
$\sigma_{\phi n}$	Standard deviation or measure of sorting for native material	—
Δ	Winnowing function	—